

AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIMS:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended)

A machine tool for performing a machine tool function including a plurality of components adapted to cooperate with each other to execute the machine tool function, the machine tool having:

- a plurality of constituent parts, each said constituent part being substantially rigid;

- a plurality of sheets of damping material;

- each said sheet having at least one hole formed therein;

- each said component comprising at least two of said constituent parts and at least one of said sheets, said at least one sheet being interposed between said at least two constituent parts, to prevent said at least two constituent parts from contacting each other;

- each said constituent part including at least one first surface adapted to cooperate with at least one second surface on an adjacent constituent part to define a slot in which said at least one sheet is receivable, said at least one sheet being interposed between said at least one first surface and said at least one second surface to form each said component;

each said sheet being substantially planar and substantially non-resilient;
and

each of said at least two constituent parts having at least one hole drilled therein respectively, each said at least one hole in each said constituent part being substantially aligned with said at least one hole in said at least one sheet to receive a bolt for fastening said at least two constituent parts together with said at least one sheet positioned therebetween, to form each said component and to maintain said at least two constituent parts under compression and substantially stationary relative to each other,

whereby relative vibratory movement between said at least two constituent parts is precluded. ~~vibration of the machine tool while performing the machine tool function is damped by said sheets of damping material and the machine tool has the stiffness required for executing said machine tool function.~~

5. (Previously Presented)

A machine tool according to claim 4 in which each said sheet is substantially impermeable.

6. (Previously Presented)

A machine tool according to claim 5 in which each said sheet comprises polyvinylchloride and each said sheet has a thickness between approximately 0.01 inch and approximately 0.02 inch.

7. (Cancelled)

8. (Cancelled)

9. (Previously Presented)

A machine tool according to claim 4 in which each said constituent part comprises machined steel.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended)

A machine tool for performing a machine tool function including a plurality of components adapted to cooperate with each other to execute the machine tool function, the machine tool having:

- a plurality of constituent parts, each said constituent part being substantially rigid;

- a plurality of linings for damping vibration of the machine tool during performance of the machine tool function, each said lining being substantially planar;

- each said component comprising at least two of said constituent parts and at least one of said linings sandwiched therebetween, to prevent the constituent parts from contacting each other;

- each said lining being substantially non-resilient and having a thickness between approximately 0.01 inch and approximately 0.02 inch;

- each said lining having at least one hole formed therein;

- one of said at least two constituent parts having at least one first mating surface adapted to cooperate with at least one second mating surface of the other of said at least two constituent parts to define a slot for receiving said at least one lining, said at least one lining being configured to maintain contact with said at least one first mating surface and with said at least one second mating surface when said at least one lining is positioned therebetween such that vibration of the machine tool during performance of the machine tool function is damped by said at least one lining; and

- each of said at least two constituent parts having at least one hole drilled therein, each said at least one hole being substantially aligned with said at least one hole in said lining to receive a bolt for fastening said at least two

constituent parts together with said lining positioned therebetween to form each said component and to maintain said at least two constituent parts under compression and substantially stationary relative to each other, whereby relative vibratory movement between said at least two constituent parts is precluded. ~~vibration of the machine tool is damped by said linings in said components and the machine tool has the stiffness required for executing said machine tool function.~~

14. (Previously Presented)

A machine tool according to claim 13 in which each said lining is substantially impermeable.

15. (Previously Presented)

A machine tool according to claim 14 in which each said lining comprises polyvinylchloride.

16. (Cancelled)

17. (Previously Presented)

A machine tool according to claim 13 in which each said constituent part comprises machined steel.

18. (Currently Amended)

A method of damping vibration of a machine tool, the machine tool being adapted to perform a machine tool function and including a plurality of machine tool components adapted to cooperate with each other to execute the machine tool function, the method comprising the steps of:

- (a) providing at least two constituent parts for each said component, each said constituent part being substantially rigid, each said constituent part having at least one hole drilled therein;
- (b) providing at least one sheet of damping material for each said component, said at least one sheet of damping material having a thickness between

approximately 0.01 inch and approximately 0.02 inch and having at least one hole formed therein;

- (c) forming each said component by interposing said at least one sheet of damping material between said at least two constituent parts, said at least one sheet of damping material being substantially non-resilient, said at least one hole in said at least one sheet of damping material being substantially aligned with said holes drilled in said at least two constituent parts; and
- (d) inserting a bolt into said at least one hole in said at least one sheet of damping material and said holes drilled in said at least two constituent parts to fasten said at least two constituent parts together with said at least one sheet of damping material positioned therebetween to form each said component and to maintain said at least two constituent parts under compression and substantially stationary relative to each other,

whereby relative vibratory movement between said at least two constituent parts is precluded. ~~said at least one sheet of damping material dampens vibration of the machine tool during performance thereby of the machine tool function.~~

19. (Previously Presented)

A method according to claim 18 in which each said sheet of damping material comprises polyvinylchloride.

20. (Previously Presented)

A method according to claim 18 in which each said constituent part comprises machined steel.

21. (Currently Amended)

In a machine tool adapted for performing a machine tool function, the machine tool including a plurality of components adapted for cooperation with each other to execute the machine tool function, the improvement comprising each said component including at least two constituent parts, each said constituent part

being substantially rigid, one of said at least two constituent parts having at least one first surface and the other of said at least two constituent parts having at least one second surface positioned parallel to said at least one first surface to define an aperture therebetween, and at least one sheet of damping material receivable in the aperture between said at least one first surface and said at least one second surface to be sandwiched therebetween for dampening vibration of the machine tool, said at least one sheet being substantially non-resilient, said at least one sheet having at least one hole formed therein, each of said at least two constituent parts having at least one hole drilled therein respectively, each said hole in said at least two constituent parts being substantially aligned with said at least one hole in said at least one sheet of damping material to receive a bolt for fastening said at least two constituent parts together with said at least one sheet positioned therebetween to form each said component and to maintain said at least two constituent parts under compression and substantially stationary relative to each other.

22. (Currently Amended)

A component to be included in a machine tool, said component having predetermined dimensions, the component including:

- at least two constituent parts, each said constituent part being formed of substantially rigid material;
- at least one sheet of damping material, said at least one sheet of damping material being substantially non-resilient;
- said at least two constituent parts cooperating with each other to form at least one slot in which said at least one sheet is receivable;
- said at least one sheet separating each of said at least two constituent parts from each other to limit vibration of the machine tool;
- said at least one sheet of damping material having a thickness between approximately 0.01 inch and approximately 0.02 inch and having at least one hole formed therein;
- each of said at least two constituent parts having at least one hole drilled therein respectively; and

each said hole in said at least two constituent parts being substantially aligned with said at least one hole in said at least one sheet of damping material to receive a bolt for fastening said at least two constituent parts together with said at least one sheet of damping material positioned therebetween to form each said component and to maintain said at least two constituent parts under compression and substantially stationary relative to each other.